

## Abstract of the Disclosure

Noninvasive, remote methods and apparatus for detecting early phases of neuro diseases such as the non-tremor phase of Parkinson's disease, dyskinesia, dyslexia and neuroatrophy, etc., are disclosed. Five words spoken either directly into a microphone connected to a local analysis system or remotely, as by way of a telephone link to a system for analysis of time and frequency domains of speech characteristics are representative of the presence of disease. The method includes the steps of transducing a set of unmodified spoken words or numbers into electrical signals which are bandlimited and amplified. These signals are analyzed in both time and frequency domains to detect and measure the manifestation of neurological disorders in the envelope of the time representation and spectral density of the words. Detection is carried out when the subject's body is in contact with neither a sensor nor an instrument, nor subjected to any other invasive means such as providing body fluids or breath, and without the need to perform any psychomotor functions.